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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,964	09/06/2000	David M. Singleton	TH0681N (US)	9045
23632	7590	01/19/2007	EXAMINER	
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463			OGDEN JR, NECHOLUS	
		ART UNIT	PAPER NUMBER	
		1751		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	01/19/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/655,964	SINGLETON ET AL.	
	Examiner Necholus Ogden	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 December 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10, 12, 70-73 and 75-102 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-10, 12, 70-73 and 75-102 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/06; 11/06; 12/06.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-16-2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Response to Amendment

1. Claims 1-10, 12, 70-73, 75-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 91/16409.

WO '409 disclose a liquid detergent composition comprising a primary alcohol sulfate, wherein said sulfate are made commercially available under Lial 125, Dobanol 25, Empicol Lx, and Texapon (page 3, lines 10-19). WO '409 teaches that at least 20% of the sulfate component is branched (page 5, lines 22-30).

Accordingly, WO '409 lacks the specific teaching of the atom branching and skeletal isomerization.

It would have been obvious to one of ordinary skill in the art to formulate a biodegradable primary alcohol sulfate with the specification as claimed, because WO '409 teaches that the commercially available sulfates are biodegradable (Lial 125) and branched. With respect to the specific atom branching and the skeletal isomerization, it is the examiners position that the claims are directed to the same compound(s) as disclosed in WO '409 and many of the commercially available products possess many of the similar characteristics were one of ordinary skill in the art, in the absence of a showing to the contrary would reasonably construe the sulfates of WO '409

encompassing the claimed sulfate. Furthermore, it has been held that a *prima facie* case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979).

See *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991).

With respect to the skeletal isomerization process, it is held that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

1. Claims 1-10, 12, 70-73, 75-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 85/02175.

WO '175 discloses a detergent composition for use as biodegradable detergents wherein said compositions comprise C14 alcohols having branching at the 2-position and an additional methyl branch. The alcohols have a limited vicinal substitution and no di-substituted carbon chain atoms (i.e. quaternary carbon atom). Note, see pages 5-7.

WO '175 lacks applicant's specific teachings of branches per molecule.

It would have been obvious to one of ordinary skill in the art to expect similar characteristics and properties from the sulfated alcohols of WO '175 because they are the same compounds but different isomers. However, absent a showing to the contrary, it has been held that a *prima facie* case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). Moreover, Compounds which are position isomers (compounds having the same radicals in physically different positions on the same nucleus) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomer *prima facie* obvious).

Response to Arguments

2. Applicant's arguments filed 11-03-06 have been fully considered but they are not persuasive.
3. The declaration under 37 CFR 1.132 filed 11-30-2006 is insufficient to overcome the rejection of claims 1-10, 12, 70-73, 75-102 based upon WO 91/16409 as set forth in the last Office action because: The declaration is not commensurate in scope with the

claimed invention. Specifically, applicant claims a broad class of alkyl sulfate/ethoxy sulfate surfactants such as "biodegradable sulfate" as described in claim 1 applicant's most comprehensive claim. Yet, the declaration compares a very narrow and specific branched fraction Neodol 45 alkyl sulfate with the prior art alkyl sulfate. Therefore, one of ordinary skill would not be able to determine criticality of the showing in view of applicant's declaration not being commensurate in scope with the claimed invention.

Accordingly it is held that the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980).

4. Applicant argues that the specific alcohols listed in the WO '175 reference does not disclose the sulfate/ethoxy sulfate of the claimed invention.

5. The examiner contends that it would have been obvious to optimize the branching of the specific alcohols and optimize the branching by utilizing well-known natural feedstock. Moreover, it has been held obvious to the skilled artisan that similar structures will have similar properties, in the absence of a showing to the contrary.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-T, Th-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Necholus Ogden
Primary Examiner
Art Unit 1751

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